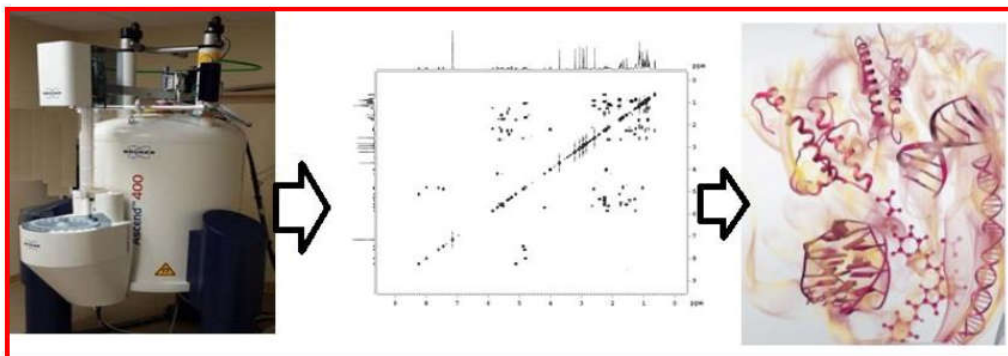




**INDIAN INSTITUTE OF TECHNOLOGY PATNA
DEPARTMENT OF CHEMISTRY**

Bihta , Amhara Road, Patna – 801103, India; Phone +91-612 3028225

Bruker 400 MHz FT-NMR Spectrophotometer



The Department of Chemistry at IIT Patna has state-of-the-art **Bruker 400 MHz NMR spectrophotometer** with liquid and solid probes. The instrument has dedicated VT (Variable Temperature) accessories. The NMR service is open to internal users of IIT Patna as well as for external researcher from academia and industries. A range of NMR experiments can be performed using this instrument, including routine **1D- and 2D proton, carbon, fluorine and phosphorus** experiments.

To maintain the state of the art NMR facility and to provide expedited support in high-end research, following charges have been fixed for availing the facility. The details of the charges are summarized below.

NMR DATA COLLECTION CHARGES FOR EXTERNAL SAMPLES

(For academic Institutes, Universities, Colleges etc)

Liquid Probe						
Experiment (S)	Quantity	No. of Scans	CDCl ₃ (₹)	DMSO-D ₆ (₹)	D ₂ O (₹)	Benzene-D ₆ (₹)
¹ H, ¹⁹ F & ³¹ P NMR	3-5 mg	16	180	270	180	320
	<3 mg	32	230	320	230	360
	1 mg	128	340	440	340	500
¹³ C NMR/DEPT	>25 mg	256	380	450	380	520
	<25 mg	512	450	530	450	610
	10-15 mg	1024	620	710	620	770
2D/COSY/NOEST/DOSY/HSQC/HMQC/HMBC/TOCSY	>15 mg	128	340	450	340	490
		512	530	620	530	680
		1024	670	750	670	800
Solid Probe						
³¹ P/ ¹³ C/DEPT	100 mg	256	2100			
		512	2400			
		1024	3000			
Hourly Basis						
Liquid Probe (₹)			Solid Probe (₹)			
800 per hour			2800 per hour			

Note: In case of hourly basis, user has to provide deuterated solvents for liquid probe.



**INDIAN INSTITUTE OF TECHNOLOGY PATNA
DEPARTMENT OF CHEMISTRY**

Bihta , Amhara Road, Patna – 801103, India; Phone +91-612 3028225

- ❖ For Solid probe data collection side band separation required or not required please mention. If required extra @2% charges will be required.
- ❖ IIT, Patna has variable temperature data collection setup in both liquid and solid probes. An extra @10% charge will be applicable for using VT data.
- ❖ In liquid state the data can be collected from -135 °C to + 135 °C range. In solid state the data can be collected from 0 °C to 80 °C range with maximum rotation speed 10k.
- ❖ **Other than the above mentioned solvents the user has to supply the deuterated NMR Solvents and charges using CDCl₃ will be applicable in that case.**
- ❖ **Charges mentioned here are excluding GST. Please add 18% GST along with the charges as per Government Regulation.**
- ❖ **If the time exceeds for the specialized experiment as per user instruction, every additional experiment/time (30 min. additional time) will be charged thereof with 500/- for academic institutes.**
- ❖ **For (Govt. labs/R&D centres , CSIR labs, etc.) charges will be 3 times the charges mentioned for academic institutes. Please multiply by three and add GST for calculating the charges for this category.**
- ❖ **For others (Industries, Companies, Individuals, etc.) charges will be 5 times the charges mentioned for academic institutes. For calculating the charges for this category, please multiply by the charges of academic institutes by five and add GST.**